REMARKS

Claims 14, 16-20, 57, 58, 60, 65, 78-92 are pending, of which claims 14, 57, 91, and 92 are independent. Claims 14, 16-20, 57, 58, 60, and 65 are amended, and new Claims 78-92 are added to the application by the present amendment. Support for these amendment can be found throughout the application, for example, at least at ¶¶7-23, ¶¶66-67, ¶¶72-81, ¶¶92-101, and Figure 8 of the application. Claims 15, 21, 59, 61-64, and 66-77 are canceled without prejudice, and the Applicant does not waive any rights to the subject matter represented by canceled claims and reserves the right to file a continuation patent application including these claims.

Claims 14-21 and 57-77 were rejected under 35 U.S.C. §§101, 102(e), and/or 103(a). For the reasons described below, these rejections are overcome.

Rejections under 35 U.S.C. §101

Claims 14-21 and 55-77 have been rejected under §101 as being directed to non-statutory subject matter. In particular, the Office notes that independent method Claims 14 and 57 can be implemented without a computer or machine and that they should be amended to indicate that the subject matter is implemented by a computer, i.e. a computer implemented method. In response, independent method Claims 14 and 57 and their respective dependent Claims 13-21, 55, 56, 58-77 are amended by the present amendment to specify that they are directed to a computer implemented method. Reconsideration and withdrawal of the rejection are respectfully requested.

Rejections under 35 U.S.C. §102(e)

Claims 55-77 have been rejected under §102(e) based on U.S. Patent No. 6,295,528 to Marcus et al. This rejection is traversed.

Amended independent Claim 57 relates to a computer implemented method of improved searching for electronic documents. URL addresses of electronic documents (e.g., websites and webpages) that are associated with businesses located in one or more verified geographic locations are identified. The geographic location of the business is verified by an independent source. The independent source, for example, can be a credit card online merchant database,

United States Postal Service Street Listing, or an electronic Yellow Pages directory, as set forth in Claim 86. These geographically verified URL addresses are stored. For example, the geographically verified URL addresses can be stored locally on a user computer in one or more tables, as set forth in Claims 82, 86, and 92. When a user enters a query specifying a desired geographic location and a keyword at a search engine, such as Yahoo! or Google, the present invention detects the geographically related query. The search engine's search results (a set of URL addresses) are received by the present invention. The present invention searches the stored geographically verified URL addresses to identify URL addresses associated with the desired geographic location. Using the stored geographically verified URL addresses, the present invention determines which URL addresses in the search engine search results actually correspond to business located in the desired geographic location specified in the query. In particular, the URL addresses in the search results that the search engine has identified in response to the geographic location in the query are compared with the collection of geographically verified URL addresses. Geographically verified URLs that match the URLs in the search engine results are provided.

In this way, URLs that have been verified as being associated with businesses in a particular geographic location can be collected and cross-referenced against search results from a search engine. Specifically, this stored collection of geographically verified URLs can be used to filter search results from search engines. For example, if a user enters in a search request for "pizza" in "Boston" in a search engine like Yahoo or Google, the present invention conducts a parallel search in its storage of geographically verified URLs (e.g. URLs of websites for businesses in Boston). The results from the verified listing of websites for businesses in Boston are compared against the search results provided by the search engine (e.g., Google or Yahoo). For instance, the verified Boston business URLs are cross-referenced with the Google search results and any matching URLs are provided. The matching URLs can be presented to the user by highlighting, for example, the matches in the Google search results (e.g., see Claim 90). The present invention can be implemented in a browser plug-in (e.g., see Claims 16, 82-84, 86-88, and 91) to filter Google's search results in response to geographically related queries. The present invention can verify which search results provided by Google actually relate to the desired geographic region, and then they can be presented to the user.

By way of contrast, Marcus relates to an approach for converting geographic inputs in database queries into direct marketing area queries. According to Marcus, direct marketing areas define geographic locations as discrete areas of interest that are intended to be more useful for purposes of advertising and marketing. A geographic input, such as a city and state, or a latitude and longitude, is converted to a direct marketing area. The direct marketing area is substituted for the geographic area input in the query, and then the updated query is performed on the database.

Although Marcus is directed to an approach for handling geographically related queries, Marcus does not relate to the inventive approach to geographic searching that conducts parallel searches using a search engine and a collection of geographically verified URL addresses. Specifically, the claimed approach uses a collection of geographically verified URL addresses to compare against search results from a search engine. By comparing the verified addresses with results from a search engine, the claimed technique can provide highly targeted search results that relate to the desired geographic area. As such, Marcus does not discuss the claimed *comparing the set of URL addresses provided by the search engine with the identified geographically verified URL addresses to identify matches.*

Moreover, Marcus does not discuss anything about *storing a collection of geographically verified URL addresses of electronic documents that are associated with business located in one or more geographic locations being verified using a mechanism other than the content of the electronic document.* In fact, Marcus is silent about how a geographic location is determined. By verifying the geographic location using an independent source, the claimed approach can generate search results without false positives. Conventional geographically related searching approaches rely on the content of the website document to determine whether it is associated with a particular geographic location. The inventive approach, however, handles searches differently because it does not rely on using the content of the document to verify the geographic location. Perferably, the location of the business that owns the URL address is confirmed using an independent source, such as the Yellowpages.

Thus, Marcus does not discuss to the requirements of the claimed invention of Claim 57, namely:

- storing a collection of geographically verified URL addresses of electronic documents that are associated with business located in one or more geographic

locations, each of the geographic locations being verified by an independent source;

- receiving a set of URL addresses from a search engine, where the set of URL addresses are provided by the search engine as search results in response to a user query specifying a desired geographic location and an keyword;

- searching the stored geographically verified URL addresses to identify URL addresses associated with the desired geographic location;

- comparing the set of URL addresses provided by the search engine with the identified geographically verified URL addresses to identify matches; and

- providing the URL addresses in the search results from the search engine which match the identified geographically verified URL addresses.

As such, the §102(e) rejections of Claim 57 and its respective dependents, based on Marcus should be withdrawn. Reconsideration is respectfully requested.

Rejections under 35 U.S.C. §103(a)

Claims 14-21 were rejected under 35 U.S.C. §103(a) based on Wills in view of Andrew. This rejection is traversed.

Amended independent Claim 14 relates to a computer-implemented method of improved searching for electronic documents. A collection of URL addresses of electronic document is created. The URL addresses of the electronic documents are associated with businesses having a respective geographic location that is authenticated by a mechanism other than by the content of the electronic document. At a query interface, a geographically related query is received that specifies a desired geographic location and a keyword. A searchable index of content is searched to identify electronic documents having URL addresses that match the desired geographic location and the keyword. The collection of geographically authenticated URL addresses is searched to identify URL addresses of electronic documents that match the desired geographic location. The search results from the searchable index are compared with the search results form the collection of geographically authenticated URL addresses to identify an authenticated set of URL addresses of the electronic documents which match the desired geographic location and the specified keyword. The authenticated set of URL addresses of the electronic documents which match the desired geographic location and the specified keyword are returned.

With conventional searching technologies, it is difficult for a user to locate the website of a business even if the exact name and city location of the business is known and used. Consumers, for example, want to input minimal information as search criteria and in response, they want specific, targeted and relevant information. Being able to provide accurate search results to a consumer's query for websites of businesses in a specific location that sell a particular product is very valuable, as it can drive a transaction, such as a sale. Unfortunately for the consumer, with conventional searching technologies, the search results to the consumer's search query often contain an unyielding amount of false positives (websites not really associated with the geographic location specified), as well as many misses (websites not identified in the search results even though they are associated with the geographic location).

With the claimed approach, however, website addresses that have already been verified (authenticated) as being associated with a business located in a particular geographic location are used, and a searchable index of the content from these websites is created. Using this searchable index of electronic documents associated with geographically authenticated URL addresses, the present invention can provide highly targeted search results in response to geographic queries.

By way of contrast, Wills relates to a search and retrieval process for documents associated with geographical coordinates. Wills teaches to identify documents as being associated with a specific geographic region using the content of the documents. In particular, for each document, an index is created for all geographic terms found in the document so that searches for the same geographical areas will be able to find the relevant documents.

In the present invention, however, the geographical locations associated with URL addresses are authenticated by one or more independent sources. The independent sources are unrelated to, *independent of*, the content of the electronic documents. For example, the geographic locations are authenticated using a mechanism other than the content of the document, as set forth in Claim 56. The independent source can be the credit card online merchant database, United States Postal Service street listing database, or an electronic Yellow Pages directory, as set forth in Claim 84. In this way, the present invention uses a ground-to-web authentication approach in which the geographic location is determined using verified independent information concerning the physical location of a business. The independent

information concerning the physical location of the business can be used to determine the business's website address.

Rather than a ground-to-web approach as required by the claimed invention, Wills teaches to use a web-to-ground approach, in which the geographic content specified in the content of the webpage is used to determine all related geographic locations. Because there is a vast amount of geographically related information on a typical webpage, Will's approach produces a number of false positives. If, for instance, a user is attempting to find a travel agency in Boston and inputs a query for "travel agency and Boston" into Will's search system, the search results would potentially include webpages of travel agencies not located in Boston, but offering Boston related information. With the present invention, however, if a user inputs the search query, "travel agency and Boston," with the claimed approach, the search results would be URL addresses that are actually associated with a physical location in Boston. In other words, the present invention would provide URL addresses that have been independently verified as being associated with Boston businesses.

The Office correctly notes that Wills does not relate to an authenticated database. The Office cites Andrew to show this inventive feature. Andrew, however, relates to authenticated digital certificates and cryptography measures, which are unrelated to the claimed invention. In particular, Andrew is non-analogous art because the geographically authenticated URL addresses required by the claimed invention do not relate to digital certificates and cryptography. Rather, a geographically authenticated URL address in the context of the invention means that the geographic location associated with the URL address has been authenticated (verified) by an independent source. In other words, the geographic location associated with the URL address is confirmed to be genuine using an independent source. Thus, the geographically authenticated URL addresses of the present invention do not relate to digital certificate authentication measures discussed in Andrew.

Thus, neither Wills nor Andrews, taken alone or in combination, discuss the requirements of the claimed invention, namely:

- creating a collection of URL addresses of electronic documents that are associated with businesses having a geographic location being authenticated by a mechanism other than by the content of the electronic document;

- receiving a geographically based query specifying a desired geographic location and a keyword at a query interface;
- searching a searchable index of content to identify electronic documents having URL addresses that match the desired geographic location and the keyword;
- searching the collection of geographically authenticated URL addresses to identify URL addresses of electronic documents that match the desired geographic location;
- comparing the search results from the searchable index with the search results from the collection of geographically authenticated URL addresses to identify an authenticated set of URL addresses of the electronic documents which match the desired geographic location and the specified keyword; and
- returning the authenticated set of URL addresses of the electronic documents which match the desired geographic location and the specified keyword, as set forth in Claim 14.

As such, the §103(a) rejection of independent Claim 14 based on Wills in view of Andrews should be withdrawn. Dependent Claims 14-21 include all the limitations of base Claim 1. For reasons similar to those set forth above with respect to Claim 1, the §103(a) of dependent Claims 10-14, 16 and 17 should be reconsidered and withdrawn. Reconsideration is respectfully requested.

New Claims

New Claims 78-92 are added to the application by the present amendment. New Claims 78-85 depend from base Claim 14 and new Claims 86-90 depend from base Claim 57 and, therefore, include all of the limitations of their respective base claims. For the reasons similar to those set forth above with respect to base Claims 14 and 57, respectively, their respective dependent claims are in condition for allowance. New independent Claims 91 and 92 recite limitations similar to those set forth in independent Claims 14 and 57 and, therefore, for reasons similar to those set forth above with respect to independent Claims 14 and 57, independent Claims 14 and 57 are in condition for allowance.

In addition, new Claim 91 specifically requires that the invention be implemented using a browser plug-in to detect geographic terms in search queries at search engine interfaces. For example, if a user was using Google to perform a geographic query, the invention of Claim 91 would detect the geographic keyword term in the query at that search engine, and then independently perform its own search in its collection of geographically verified URL addresses to identify to the user which of Google's search results actually relate to the desired geographic location. Further, new Claim 91 specifically relates to storing the geographically verified URL addresses and their indexed content in one or more tables locally on a user computer. Search queries specifying a geographic location and a keyword are detected using a browser plug-in, and the local storage of indexed content and geographically verified URL addresses are searched in response to the query. Thus, none of the cited references discuss these inventive concepts set forth in Claims 90 and 91 of using a browser plug-in to monitor and detect search engine queries related to geography.
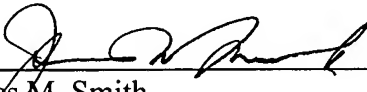
Information Disclosure Statement

A Supplemental Information Disclosure Statement (SIDS) was filed on September 19, 2005. Entry of the SIDS is respectfully requested.

CONCLUSION

In view of the above amendments and remarks, it is believed that all claims are in condition for allowance, and it is respectfully requested that the application be passed to issue. If the Examiner feels that a telephone conference would expedite prosecution of this case, the Examiner is invited to call the undersigned attorney.

Respectfully submitted,

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